

Amendment and Request for Reconsideration  
Dated June 5, 2006

Appl. No. 10/762,028

## REMARKS

### STATUS OF THE CLAIMS

This Amendment and Request for Reconsideration ("Amendment") is in response to the Office action dated March 6, 2006. Claims 1-6, 8, 9, and 11-38, and 40-50 are currently pending in this application. Claims 1-3, 9, 34-38, 41-44, 46, 48-50 are currently amended. Claim 6-8, 10, 11, 27, 28, 30, 39, 40 are withdrawn from consideration.

### CLAIM REJECTIONS and OBJECTIONS

In the March 6, 2006 Office Action, claims 1-6, 8, 9, and 41-50 stand rejected under 35 U.S.C. § 112, second paragraph as allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1-6, 8, 9, 11-38, and 41-50 stand rejected under 35 U.S.C. § 112, first paragraph as allegedly failing to comply with the enablement requirement. Claims 1, 3, 5, 6, 8, 9, 28, 31, 32, 34, 35 and 46-50 stand rejected under 35 U.S.C. § 102(b). Claims 1, 3-6, 8, 9, 27-38 and 42-50 stand rejected under 35 U.S.C. § 103(a). Claims 1-6, 9, 12-27, 29, 31-33, 37, and 48-50 were objected to for misjoinder of invention.

#### Objections

Claims 1-6, 9, 12-27, 29, 31-33, 37, 41 and 48-50 stand objected to for misjoinder of invention. Independent claims 1 and 2 have been amended as suggested in the Office action to recite the elected invention. Applicants respectfully request that the objection be withdrawn.

#### The Claims are Definite

Claims 1-6, 8, 9, and 41-50 stand rejected under 35 U.S.C. § 112, second paragraph as allegedly failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 1 and 2 have been amended to recite the elected subject matter as suggested by the Examiner and are

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definite. Claims 3-5, 9, 41-50 which depend from claim 2 are likewise definite. Applicants respectfully assert that claims 1-5, 9, and 41-50 comply with 35 U.S.C. § 112, second paragraph, and respectfully request that the rejection be withdrawn.

#### **The Claims are Enabled**

Claims 1-6, 8, 9, 11-38, and 41-50 stand rejected under U.S.C. § 112, first paragraph as allegedly failing to comply with the enablement requirement. Specifically, the Office action contends that "chiral bishydroxamic acid," "substrate," and "chiral oxidation product" is broader than what is enabled by the specification.

Claims 1 and 2 have been amended as suggested in the Office action to recite a catalytic asymmetric epoxidation, an alkene or cyclic alkene, and a chiral epoxide. However, Applicants respectfully traverse the enablement rejection that "chiral bishydroxamic acid ligand" is not enabled. As recited in claim 1, "chiral bishydroxamic acid ligand" refers to a single ligand which has two hydroxamic acid functional groups. Examples of how to make and use the chiral bishydroxamic acid ligands are provided in the specification at least in examples 1-45.

Applicants respectfully disagree with the rejection of claim 1 as discussed above, however, out of expediency, claims 3, 9, 34-38, 41-43 and 48-50 have been amended to depend from claim 2. Applicants respectfully assert that all of the claims comply with 35 U.S.C. § 112, first paragraph, and respectfully request that the rejection be withdrawn.

#### **The Claims are Not Anticipated**

Claims 1, 3, 5, 6, 8, 9, 28, 31, 32, 34, 35 and 46-50 stand rejected under 35 U.S.C. § 102(b) over Michaelson. The Office action contends that the recitation of "chiral bishydroxamic acid ligand and a metal" in claim 1 reads on the compounds taught by Michaelson.

Applicants respectfully assert that the Michaelson reference fails to teach or suggest "a chiral bishydroxamic acid ligand" element that is recited in rejected independent claim 1. As recited in claim 1, chiral and bishydroxamic acid modify the term ligand. A single ligand has two hydroxamic acid functional groups. In contrast,

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Michaelson discloses chiral molybdenyl bishydroxymates,  $[O_2Mo(hydroxymate)_2]$ . As used by Michaelson, bishydroxymate modifies the term molybdenyl. Although the molybdenum metal is coordinated to two hydroxymate functional groups, each hydroxymate belongs to a separate ligand as demonstrated by the formula  $[O_2Mo(hydroxymate)_2]$ . Michaelson does not teach or suggest a singular ligand with two hydroxamic acid functional groups.

Applicants respectfully disagree with the rejection of claim 1 as discussed above, however, out of expediency, claims 3, 9, 34, 35, 41-43 and 48-50 have been amended to depend from claim 2. Applicants respectfully assert that claims 1, 3, 5, 9, 31, 32, 34, 35 and 46-50 are not anticipated by Michaelson, and respectfully request that the rejection be withdrawn.

#### The Claims are Not Obvious

Claims 1, 3-6, 8, 9, 27-38 and 42-50 stand rejected under 35 U.S.C. § 103(a) over Michaelson. The Office action contends that the use of chiral bishydroxamic acid ligand and a metal broadly is considered obvious in view of Michaelson.

Applicants respectfully assert that the Michaelson reference fails to teach or suggest each and every element of claim 1, specifically, a chiral bishydroxamic acid ligand. As discussed previously, chiral and bishydroxamic acid modify the term ligand in claim 1. A single ligand has two hydroxamic acid functional groups. In contrast, Michaelson discloses chiral molybdenyl bishydroxymates,  $[O_2Mo(hydroxymate)_2]$ . As used by Michaelson, bishydroxymate modifies the term molybdenyl. Although the molybdenum metal is coordinated to two hydroxymate functional groups, each hydroxymate belongs to a separate ligand as demonstrated by the formula  $[O_2Mo(hydroxymate)_2]$ . Michaelson does not teach or suggest a ligand with two hydroxamic acid functional groups. As such a *prima facie* case of obviousness has not yet been presented against claim 1.

For at least the reasons presented above, Applicants respectfully disagree with the rejection of claim 1 as discussed above, however, out of expediency, claims 3, 9, 34-38, 41-43 and 48-50 have been amended to depend from claim 2.

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Applicants respectfully assert that claims 1, 3-5, 9, 12-26, 29, 31-38, 41-50 are not obvious over Michaelson, and respectfully request that the rejection be withdrawn.

### **CONCLUSION**

Applicants believe that currently pending claims 1-5, 9, 12-26, 29, 31-38 and 41-50 are patentable. Applicants respectfully request that the Examiner grant early allowance of this application. The Examiner is invited to contact the undersigned agent for the Applicants via telephone if such communication would expedite this application.

Respectfully submitted,



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